

PROJECT DESCRIPTION

1. General
- This project involves the installation of a new traffic control signal in conjunction with geometric improvements at the intersection of Ridge Road (MD 713) and Teague Road/H-Block in Anne Arundel County, Maryland. MD 713 is assumed to run in a North-South direction.
- II. Intersection Operation
- The intersection will operate in a NEMA six phase semi-actuated mode. Ridge Road will operate with protected/permissive left turn phasing and Teague Rd./H-Block will operate concurrently.
- III. Special Notes
1. Maintenance of traffic will be handled by the Contractor utilizing the following standard plates for traffic control: 104.00-13, 104.00-19, 104.00-21, 104.00-24, 104.17-02, 104.39-02, 104.42-02, 104.41-02, 104.48-02, 104.49-02, 104.81-01
2. The following contact persons for District #5 are as follows:

Mr. Paul D. Armstrong  
District Engineer  
(410) 841-1001

Mr. Richard L. Daff  
Chief, Traffic Operations Division  
(410) 787-7630

Mr. Larry Elliott  
Assistant District Engineer - Traffic  
410-841-5450

Mr. Charles George  
Assistant District Engineer - Utility  
(410) 841-1003

BGE (Power Company)  
Mr. Bernie Thuman (Supervisor of Engineering)  
7317 Parkway Drive South  
Hanover, MD 21076  
(410) 859-9030

EQUIPMENT LIST

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
LS	LS	104	Maintenance of Traffic.
LS	LS	108	Mobilization.
4	CY	205	Test pit excavation.
150	LF	549	Furnish and install 24 in. white heat applied thermoplastic pavement marking tape.
6	EA	549	Furnish and install heat applied thermoplastic permanent preformed pavement marking symbol.
20	CY	801	Furnish and install concrete for signal foundation.
5	EA	804	Furnish and install ground rod 3/4 in. diameter X 10 ft.
100	LF	805	Furnish and install 4 in. schedule 80 rigid PVC conduit (trenched).
400	LF	805	Furnish and install 3 in. schedule 80 rigid PVC conduit (bored).
150	LF	805	Furnish and install 3 in. schedule 80 rigid PVC conduit (trenched).
900	LF	805	Furnish and install 2 in. schedule 80 rigid PVC conduit (trenched).
2500	LF	810	Furnish and install 5-conductor electrical cable (No. 14 AWG).
1000	LF	810	Furnish and install 7-conductor electrical cable (No. 14 AWG).
325	LF	810	Furnish and install No. 6 AWG standard bare copper ground wire.
14	EA	811	Furnish and install electrical handhole.
2000	LF	810	Furnish and install loop wire encased in a 1/4" flexible tubing.
900	LF	815	Saw cut for loop detector.
700	LF	810	Furnish and install 2-conductor electrical cable (no. 14 awg) aluminum shielded.
80	LF	805	Furnish and install liquid tight flexible non-metallic conduit for detector wire sleeve.
350	LF	810	Furnish and install 2 conductor electrical cable (No. 14 AWG) for Push Buttons.
750	LF	810	Furnish and install 12 conductor signal interconnect electrical cable (No. 19 AWG)
800	LF	810	Furnish and install 2 conductor electrical cable (Tray Cable) (No. 14 AWG) for luminaires.

EQUIPMENT LIST (cont.)

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

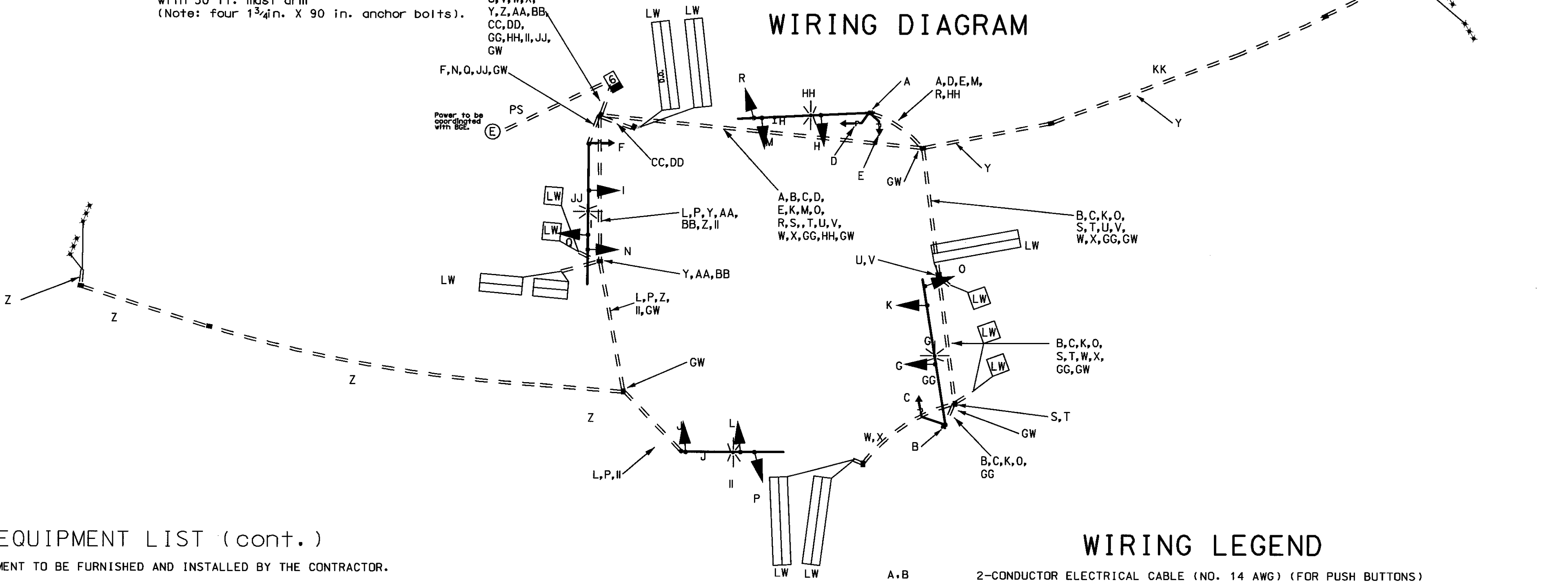
QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
38	EA	814	12in. 1 way polycarbonate black-faced signal head section - mast arm mount.
6	EA	814	8 in. 1 way polycarbonate black-faced signal head section - mast arm mount.
8	EA	814	12in. 1 way 2 section (symbolic WALK/DON'T WALK) aluminum signal head, pole mount.
4	EA	817	Furnish and install pedestrian push button and R10-4(1) sign.
1	EA	SP	Furnish and install 27 ft. steel pole with 45 ft. mast arm (Note: four 1 3/4 in. X 90 in. anchor bolts).
2	EA	SP	Furnish and install 27 ft. steel pole with 50 ft. mast arm (Note: four 1 3/4 in. X 90 in. anchor bolts).
1	EA	SP	Furnish and install 27 ft. steel pole with 30 ft. mast arm (Note: four 1 3/4 in. X 90 in. anchor bolts).

EQUIPMENT LIST (cont.)

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
1	EA	807	Furnish and Install control and distribution equipment.
4	EA	806	Furnish and install 250 Watt HPS luminaire with photocell.
4	EA	808	Furnish and install 20' luminaire bracket arm.
1	EA	816	Furnish and install Econolite size 6 base mounted cabinet complete with ASC II controller, 14 - four channel rack mounted loop detector amplifiers, telemetry module, malfunction management unit, and all necessary auxiliary equipment for system operation.
80	SF	813	Furnish and install aluminum for signs
50	LF	SP	Furnish and install 4 conductor microloop lead-in cable (No. 22 AWG)
4	EA	SP	Furnish and install microloop probe set with lead-in saw cut.

WIRING DIAGRAM



WIRING LEGEND

A,B	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) (FOR PUSH BUTTONS)
C,D,E,F	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) (FOR PED HEADS)
G,H,I,J	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) (JUMPER WIRE FOR SIGNAL HEADS)
K,L,M,N,O,P,Q,R	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) (FOR SIGNAL HEADS)
S,T,U,V,W,X,AA,BB,CC,DD	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) (FOR LOOPS)
GG,HH,II,JJ	2-CONDUCTOR (NO. 12 AWG) TRAY CABLE (FOR LUMINAIRES)
KK	12 PAIR CABLE (NO. 19 AWG) (FOR INTERCONNECT)
Y,Z	4-CONDUCTOR MICROLOOP LEAD-IN CABLE (NO. 22 AWG)
LW	1-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) (LOOP WIRE)
PS	POWER SOURCE (CABLE BY BGE)
GW	BARE COPPER GROUND WIRE (NO. 6 AWG)

Proposed interconnect conduit and cable to Arundel Mills Boulevard (controller to controller approximately 650')

WELLS & ASSOCIATES, LLC  
TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS  
1420 Spring Hill Rd., Suite 600  
McLean, VA 22102  
Phone: (703) 917-6620 Fax: (703) 917-0739  
170 Jennifer Rd., Suite 260  
Annapolis, MD 21401  
Phone: (301) 970-2402 Fax: (410) 266-9189

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
Traffic Signal Design Plan  
MD ROUTE 713 (RIDGE ROAD) &  
TEAGUE RD. / ARUNDEL MILLS H-BLOCK

DRAWN BY: WT	F.A.P. NO. XXX	TS NO. 4240
CHECKED BY: CT	S.H.A. NO. XXX	
SCALE: NTS	COUNTY: ANNE ARUNDEL	T.I.M.S. NO. F548
DATE: 11/25/02	LOG MILE: 02.871360-06	SHEET NO. 2 OF 2